## **ABSTRACT**

Open Library Telkom University is a library that provides several services for Telkom University students as well as the public such as book loaning, final assignment, and other scientific journals. To improve the satisfaction of library users it is necessary to have a good inventory control system. Currently to control the book inventory, library use stock opname method that resulting freeze activity in the library. Freeze activity cause the library must close all the activity and service to conduct the stock opname activity.

From these problem, this study focuses on proposing the design of new inventory control system using cycle counting method. This method produces a stock-taking system that can be done without generating freeze activity in the library. In this study, cycle counting focuses on stock-taking activities on accounting books.

From this study, the results obtained for each stock taking activity were checked by 3 book titles per day. In this study, an application design was also carried out to support all inventory control activities at the library such as data collection using cycle counting method and book status to improve stock taking activities.

From this study, the results obtained by using a new inventory control policy design can be carried out stock taking activities that do not produce freeze activity. This is because the number of item checks per day is decreased and also because there is an improvement in business processes in stock taking activities.

Keywords: cycle counting, library, freeze activity, inventory control policy